Contents Volume 48 (1990)

Vol. 48, No. 1 (January 1990)

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration
E.A. Tsapiuk, M.T. Bryk, V.M. Kochkodan and E.E. Danilenko (Kiev, U.S.S.R.) 1
Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes
Y. Hirata and A. Yamauchi (Fukuoka, Japan) 25
Modelling of insulin release from a glucose-responsive degradable polymeric system
F. Fischel-Ghodsian (Oxford, Great Britain) and J.M. Newton (London, Great Britain) 33
Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane
P. Radovanovic, S.W. Thiel and S-T. Hwang (Cincinnati, OH, U.S.A.) 55
The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation
J. Horno (Jaén, Spain), F. González-Caballero (Granada, Spain), A. Hayas (Jaén, Spain) and C.F. González-Fernández (Granada, Spain) 67
Formulation of dual-mode mixed gas transport in glassy polymers
J.H. Petropoulos (Athens, Greece) 79
Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient
M. Tasaka, O. Sekiguchi, M. Urahama, T. Matsubara, R. Kiyono and S. Suzuki (Nagano, Japan) 91
Reverse osmosis of milk with thin-film composite membranes
M. Cheryan, B. Veeranjaneyulu and L.R. Schlicher (Urbana, IL, U.S.A.) 103
Iterative solution of multicomponent permeator model equations (*Short Communication*)
F.P. McCandless (Bozeman, MT, U.S.A.) 115
Meeting Announcements 123
Calendar 125

Vol. 48, Nos. 2+3 (February 1990)

Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes
S.W. Thiel (Cincinnati, OH, U.S.A.) 127
Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux
E. Kokufuta and M. Nobusawa (Ibaraki, Japan) 141
A theoretical analysis of Donnan dialysis across charged porous membranes
E.H. Cwirko and R.G. Carbonell (Raleigh, NC, U.S.A.) 155
Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions
M. Reali, G. Dassi (Milan, Italy) and G. Jonsson (Lyngby, Denmark) 181
Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes
Y. Chen, T. Miyano, A. Fouda and T. Matsuura (Ottawa, Ontario, Canada) 203

Contents Volume 48 (1990)

Vol. 48, No. 1 (January 1990)

Separation of aqueous solutions of nonionic organic solutes by ultrafiltration
E.A. Tsapiuk, M.T. Bryk, V.M. Kochkodan and E.E. Danilenko (Kiev, U.S.S.R.) 1
Additivity between Donnan salt and ion-exchanged salt in the specific conductance of membranes
Y. Hirata and A. Yamauchi (Fukuoka, Japan) 25
Modelling of insulin release from a glucose-responsive degradable polymeric system
F. Fischel-Ghodsian (Oxford, Great Britain) and J.M. Newton (London, Great Britain) 33
Transport of ethanol–water dimers in pervaporation through a silicone rubber membrane
P. Radovanovic, S.W. Thiel and S-T. Hwang (Cincinnati, OH, U.S.A.) 55
The effect of previous convective flux on the non-stationary diffusion through membranes. Network simulation
J. Horno (Jaén, Spain), F. González-Caballero (Granada, Spain), A. Hayas (Jaén, Spain) and C.F. González-Fernández (Granada, Spain) 67
Formulation of dual-mode mixed gas transport in glassy polymers
J.H. Petropoulos (Athens, Greece) 79
Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient
M. Tasaka, O. Sekiguchi, M. Urahama, T. Matsubara, R. Kiyono and S. Suzuki (Nagano, Japan) 91
Reverse osmosis of milk with thin-film composite membranes
M. Cheryan, B. Veeranjaneyulu and L.R. Schlicher (Urbana, IL, U.S.A.) 103
Iterative solution of multicomponent permeator model equations (*Short Communication*)
F.P. McCandless (Bozeman, MT, U.S.A.) 115
Meeting Announcements 123
Calendar 125

Vol. 48, Nos. 2+3 (February 1990)

Concentration-dependent solute activity coefficients and solute transport in pressure-driven membrane separation processes
S.W. Thiel (Cincinnati, OH, U.S.A.) 127
Uphill transport of phosphate ion through an oxomolybdenum(V)-tetraphenylporphyrin-complex-containing bulk liquid membrane: effect of halogen ions on phosphate ion flux
E. Kokufuta and M. Nobusawa (Ibaraki, Japan) 141
A theoretical analysis of Donnan dialysis across charged porous membranes
E.H. Cwirko and R.G. Carbonell (Raleigh, NC, U.S.A.) 155
Computation of salt concentration profiles in the porous substrate of anisotropic membranes under steady pressure-retarded-osmosis conditions
M. Reali, G. Dassi (Milan, Italy) and G. Jonsson (Lyngby, Denmark) 181
Preparation and gas permeation properties of silicone-coated dry polyethersulfone membranes
Y. Chen, T. Miyano, A. Fouda and T. Matsuura (Ottawa, Ontario, Canada) 203

Non-equilibrium processes in the concentration-polarization layers at the membrane/solution interface
O.V. Bobreshova, P.J. Kulintsov (Voronezh, U.S.S.R.) and S.F. Timashev (Moscow, U.S.S.R.) 221
Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis
D. Bhattacharyya, S.L. Back, R.I. Kermode and M.C. Roco (Lexington, KY, U.S.A.) 231
Crossflow filtration for the separation of inclusion bodies from soluble proteins in recombinant *Escherichia coli* cell lysate
S.M. Forman, E.R. DeBernardez, R.S. Feldberg and R.W. Swartz (Medford, MA, U.S.A.) 263
Hydrogels at critical conditions. Part 1. Thermodynamics and swelling behavior
N.A. Peppas and L. Brannon-Peppas (West Lafayette, IN, U.S.A.) 281
Hyperfiltration of mixtures of non-electrolytes: influence of selective solvation of counterions
D. Pfenning and D. Woermann (Köln, F.R.G.) 291
Pervaporation of water–ethanol mixtures through a poly(acrylic acid) grafted polyethylene membrane. Influence of temperature and nature of counter-ions
Z.H. Ping, Q.T. Nguyen, R. Clément and J. Néel (Nancy, France) 297
Relaxation of polymer chains dissolved in the liquid phase of membranes under a pressure gradient. II. Correlation with membrane composition
O. Sekiguchi, R. Kiyono, T. Matsubara and M. Tasaka (Nagano, Japan) 309
Sorption and transport of organic vapors in poly[1-(trimethylsilyl)-1-propyne]
L.C. Witchey-Lakshmanan, H.B. Hopfenberg and R.T. Chern (Raleigh, NC, U.S.A.) 321
A note on the effects of mono- and di-bromination on the transport properties of poly (2,6-dimethylphenylene oxide) (*Short Communication*)
R.T. Chern, L. Jia, S. Shimoda and H.B. Hopfenberg (Raleigh, NC, U.S.A.) 333
Effect of turbulence on film permeability in cross-flow membrane filtration
R.D. Cohen (Houston, TX, U.S.A.) 343
Meeting Announcements 349
Meetings Calendar 351
Author Index Volume 48 (1990) 353